NANCY HORNER
320 11th street
HUNTINGTON BEACH, CA 92648-4506

July 26, 2011

Federal Communications Commission
445 12th St., SW
Room TWA325
Washington, DC 20554

Re: Comments regarding FCC IB Docket No. 11-109, Interference with GPS Signals

Dear Federal Communications Commission:

As you consider the conditional approval for LightSquared, I write to ask you to preserve the integrity of the nation's GPS system.

Last year, the federal government shut down the Loran navigation system, making recreational mariners solely reliant on GPS for all electronic navigation needs. Like so many other GPS users around the country, GPS is now integrated into our daily outings, and we look to the FCC to protect the integrity of the GPS signal.

Sincerely,

NANCY HORNER
714-960-7417

Jeremy Miller
State Senator, District 31
75 Rev. Dr. Martin Luther King, Jr. Blvd.
320 State Capitol
St. Paul, MN 55155
Phone: (651) 296-5649
Fax: (651) 296-6511
E-Mail: sen.jeremy.miller@senate.mn

Senate
State of Minnesota

July 26, 2011

Marlene Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: Comment Deadlines Established Regarding the LightSquared Technical Working Group Report, IB Docket No. 11-109

Dear Ms. Dortch:

I am writing to ask the Commission's help to bring reliable broadband Internet and cell phone coverage in rural communities.

My legislative district, which is located in the far southeastern corner of Minnesota, includes Winona, a regional center, as well as multiple rural counties comprised of small towns and farms. Much of my district lacks good telecommunications services, which is a problem for ambulance crews, state and county police and others that must respond swiftly to emergency situations. It also limits the types of employers that can start and grow in rural communities. This is a big barrier to economic growth and job creation in communities already facing challenges growing their economy.

I understand that the Commission is currently reviewing an application by LightSquared to turn on a nationwide satellite network that will address this lack of access. This is good news, since the small rural communities I represent are lagging behind urban centers in technology jobs and good cell coverage.

I also understand that the GPS industry has expressed concern that LightSquared's signals may interfere with GPS signals. Since these GPS devices were programmed by the manufacturers to

COMMITTEES: Agriculture and Rural Economies, Capital Investment, Environment and Natural Resources, Higher Education (Vice Chair), Jobs and Economic Growth

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receive signals in LightSquared's authorized space, they should take steps to remedy their devices. In the meantime, I encourage the Commission to move without delay to expand cell and wireless Broadband coverage in rural America.

Sincerely,

Jeremy Miller

NJ PE&PLS 30629 NJ PP 03312

Peter G. Burgess
Professional
Engineer • Land Surveyor • Planner
3 Silverwood Road • Moorestown, NJ 08057

July 26, 2011

Mr. Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics and earth science professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Peter G. Burgess

Mr. Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Genachowski:

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Sincerely,
Nelson C. Breining, NJPLS#27511

North Jersey Chapter
New Jersey Society of Professional Land Surveyors

July 27, 2011

Mr. Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Genachowski:

The North Jersey Chapter of the New Jersey Society of Professional Surveyors wishes to express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

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This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to

reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Philip A. McEntee, Jr.
NJ Professional Land Surveyor
President, North Jersey Chapter
NJ Society of Professional Land Surveyors

July 19, 2011

Mr. Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,
William E. Grueninger, III
MD Professional Land Surveyor Reg. #21542

4331 Valley View Road
Middletown, Maryland 21769
July 26, 2011

Mr. Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Surveyor in Maryland, West Virginia and the District of Columbia, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

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Upon review of many published reports concerning the LightSquared, LLC proposed nationwide wireless network I have reached the conclusion that the serious issues which affect the currently established GPS systems need to be resolved prior to implementation of the LightSquared network. Accordingly, I as a member of the Maryland Society of Surveyors, urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference to existing GPS networks.

Sincerely,

Gary P. Crouse

Gary P. Crouse

EAST COAST ENGINEERING, INC.

Land Surveying – Engineering – Planning – GPS – GIS

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Jay F. Pierson, PLS, PP, CFM
Robert J. Harrington, PE, CME
Jason M. Marciano, PE, PP, CME, CFM

July 28, 2011

Mr. Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

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This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. As a member of the New Jersey Society of Professional Land Surveyors I urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Jay F. Pierson, PLS
New Jersey Professional Land Surveyor #27492

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Lawrence M. DiVietro, Jr.
P.L.S., P.P., A.I.C.P., President

Paul D. LaPierre, P.E., P.L.S., P.P.
Vice President, Engineering

Robert R. Williams, C.F., R.P.F.
Vice President, Forestry Operations

associates
Andrew Hogg, P.E.
Persefoni J. Kapotas, P.P.
Yong S. Kong, P.W.S.

July 28, 2011

Mr. Julius Genachowski, Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the FCC (Federal Communications Commission) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS (Global Positioning System) technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with GPS receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

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Very truly yours,

Lawrence M. DiVietro Jr., PLS, PP, AICP
President

LMD:jw

cc: New Jersey Society of Professional Land Surveyors

ALFA FARMERS

JERRY A. NEWBY
PRESIDENT

July 26, 2011

Commission's Secretary, Office of the Secretary
Federal Communications Commission
FCC Headquarters
445 12th St., SW, Room TWA325
Washington, DC 20554

Re: IB Docket No. 11-109

Dear Sir:

The Alabama Farmers Federation believes that high-speed broadband services have great potential to bring opportunity to rural Americans, but not at the expense of losing the global positioning service (GPS). The Alabama Farmers Federation represents more than 420,000 families, many of whom rely on GPS as an integral part of their farming business. Farmers use GPS to enhance their operations, for mapping field boundaries, roads, irrigation systems, precision planting, the application of crop protection products and fertilizer and to address problem areas in crops such as weeds or disease. The accuracy of GPS is vital for farmers and ranchers in creating farm maps with precise acreage for field areas and road locations. GPS also allows farmers and ranchers to accurately navigate to specific locations in the field, year after year, for the collection of soil samples, and allows farmers to work during low-visibility field conditions such as rain, dust, fog and darkness.

We are extremely concerned with the FCC granting LightSquared a waiver enabling it to operate high-powered cellular base stations in frequencies normally used by low-powered satellite-based systems, such as GPS systems. While the deployment of broadband services is important to the economic development and stability to rural America, the use of precision agriculture is also vital to Alabama's farmers and ranchers as they continue to feed, fuel and clothe the world.

Precision agriculture allows farmers and ranchers to run efficient, economical and environmentally friendly operations. GPS allows farmers and ranchers to collect accurate geographical data of the farm or ranch, which they will then use to apply site-specific treatments to increase agricultural production and protect the environment. It is the accuracy of the GPS that allows the farmer or rancher the ability to limit input costs, for example the cost and application of fertilizer, and run an efficient operation. Any disruption to the GPS has the potential to cause significant problems.

In a public statement, LightSquared says it can't believe the process is being held up over "a problem posed by approximately 200,000 GPS devices." However, the loss of Real Time Kinetic (RTK) satellite navigation would cost farmers up to $20 billion if 100 percent of all GPS receivers encountered interference, according to the Coalition to Save Our GPS. The June 2011 report, *The Economic benefits of Commercial GPS Use in the U.S. and The Costs of Potential Disruption*, released by the coalition also predicts an overall direct negative economic impact of $96 billion at a 100 percent interference level when including other industries that rely on GPS technology such as construction and transportation.

This same report released by the Coalition to Save Our GPS, demonstrates that at an estimated 60 percent adoption rate of GPS technology on farms, the technology accounted for $10.1 billion in output per year, and reduced input costs by $9.8 billion per year, during the 2007-2010 crop years. This is based on estimates of

GPS technology increasing crop yields by 10 percent, and reducing inputs by 15 percent. With the continued cost increases in inputs such as fertilizer, seed, and fuel, GPS systems may well be the difference in some farms remaining profitable and any disruption in service could be devastating.

The Alabama Farmers Federation urges reconsideration of the order granting LightSquared conditional authority to proceed with the construction of high-powered cellular base stations, which will interfere with the frequency used by the GPS. In regards to the LightSquared Technical Working Group Report, the FCC should consider the following:

1. The report confirms though testing there will be significant interference between LightSquared operations in the upper portion of the L-band and various GPS receivers. There was also interference noted in the lower 10 MHz of the band. It should be noted that any interference has the potential to impact the efficiency of farmers, not to mention economic and environmental consequences.

2. According to the report, in response to the interference documented in testing, LightSquared has indicated a willingness to: (1) operate at a lower power than permitted by the existing FCC authorization; (2) agree to a standstill in the terrestrial use of its Upper 10 MHz frequencies immediately adjacent to the GPS band; and (3) commence terrestrial commercial operations only on the lower 10 MHz portion of its spectrum and to coordinate and share the cost of underwriting a workable solution for the small number of legacy precision measurement. The FCC should conduct a scientific investigation as to these potential "solutions" to ensure their effectiveness in eliminating interference.

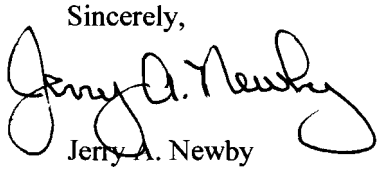
3. Consider and give proper weight to incumbent spectrum user concerns that LightSquared's proposed use will create devastating interference to GPS receivers and licensed MSS-based augmentation signals.

4. Consider LightSquared's request to operate a nationwide network of powerful cellular base stations in the L-band under different technical and operational rules as a reallocation of spectrum that merits public comment and participation in a transparent rulemaking.

5. Establish an effective process to scientifically evaluate the interference impact of LightSquared's proposed operations on GPS services, as opposed to the present "working group" procedure. This "working group" procedure empowers LightSquared to set the agenda and direct the testing process, which fails to address many other requirements necessary to fairly and impartially evaluate proposed terrestrial operations in the L-band. This process should be open, impartial, and deliberate, and encourage public participation from the existing user community and other technical experts. The FCC should assume a more direct role in this process and contribute its institutional knowledge, engineering prowess and laboratory facilities. Adequate time should be allocated to this process, and public comment should be sought on test plans and results and at other critical junctures during the process of testing and evaluating new technology for the L-band.

Thank you for the opportunity to provide comments on this critical issue. In summary, the Alabama Farmers Federation appreciates the work of the FCC to provide rural America with high-speed broadband services, but not at the expense of losing GPS.

Sincerely,



Jerry A. Newby